ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
77 West Jackson Boulevard
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
02AH19	Cheshire monitoring study

SAMPLERS: *(Print Name and Sign)*
Mike Murphy Mike Murphy Mike Murphy

Activity Code: ~~12345~~ 90107A

AIR 2002007

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	Analyte	TAG NUMBERS
DO1	11/9	00:00	X		GHS	2		5-340099 1 to 2
SO1	11/9	00:00	X		GHS	2		5-340098 1 to 2
SO2	11/9	00:00	X		RVHS	2		5-340100 1 to 2
SO3	11/9	00:00	X		ADDAVILLE	2		5-340101 1 to 2
								GHS
								serial # 3012, PSTG AVG = 19.0 inches of H2O
								serial # 3013, PSTG AVG = 19.05 inches of H2O
								RUHS
								serial # 3009, PSTG AVG = 18.75 inches of H2O
								Addaville
								serial # 3011, PSTG AVG = 18.75 inches of H2O

Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Mike Murphy	11-14-01 14:13	[signature]
Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) [signature] — Date / Time: 11/16/01 12:21pm

Ship To:

ATTN:

Airbill Number
UPS#1Z 401 199 01 4019 1260

Chain of Custody Seal Numbers

5-140024

Project No. 02AH19 **Project Name** CHESHIRE MONITORING STUDY GC1014

AIR 2002017 ARRIVAL DATE: 11/16/2001 DUE DATE 12/7/2001

Sampler
Mike Murphy

Cooler ID 02AH191 **Page** 5-140024

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH19DO1	DO1	09/11/2001 00:00:00	○ Grab ● Com	GHS	2	5-340099 1 to 2

Bottle No. 1 **Parameter** Metal analysis by ICP

Bottle No. 2 **Parameter** PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH19SO1	SO1	09/11/2001 00:00:00	○ Grab ● Com	GHS	2	5-340098 1 to 2

Bottle No. 1 **Parameter** Metal analysis by ICP

Bottle No. 2 **Parameter** PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH19SO2	SO2	09/11/2001 00:00:00	○ Grab ● Com	RVHS	2	5-340100 1 to 2

Bottle No. 1 **Parameter** Metal analysis by ICP

Bottle No. 2 **Parameter** PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH19SO3	SO3	09/11/2001 00:00:00	○ Grab ● Com	ADDAVILLE	2	5-340101 1 to 2

Bottle No. 1 **Parameter** Metal analysis by ICP

Bottle No. 2 **Parameter** PM10

EXTREMELY URGENT

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2 LBS 1 OF 1

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OHIO EPA
2195 E. FRONT STREET
LOGAN OH 43138-8637

IL 606 9-08

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USEPA CENTRAL REGIONAL LABORATORY
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536 SOUTH CLARK STREET
CHICAGO IL 60605

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CENTRAL REGIONAL LABORATORY

Data Checklist

Data Set AIR 200 2 0017 Cheshire Monitoring Metals

☑ Chain-of-Custody

☑ Analysis Request Form(s)*

☐ Sample Tags

☑ Transmittal Report w/signatures of the following

- Peer reviewer
- Team Leader review
- QA/QC Coordinator
- Data Management Coordinator

* Analysis Request Forms provide the data user a means to connect sample numbers with sampling locations

Prepared by: Sylvia Griffin 1-14-02
Data Management Coordinator

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: JAN 14 2002

Subject: Review of Region 5 Data for **Cheshire Monitoring Study**

From: **John V. Morris, Chemist**
Region 5 Central Regional Laboratory

To:

Attached are the results for: **Cheshire Monitoring Study**

CRL data set number: **20020017**

Samples analyzed for: **Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Nickel and Selenium**

Results are reported for sample designations: **2002AH19S01, 2002AH19D01, 2002AH19S02 and 2002AH19S03**

JAN 14 2002 /

Data Management Coordinator and Date Received

Date Transmitted: JAN 14 2002

Please have the U.S. EPA Project Manager/Officer complete the Customer Satisfaction Survey, attached, or call the CRL Sample Coordinator at 3-1226.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML-10C

/ /

Received by and Date

Comments:

Rev. 7/23/01

Date: 9 January 2002
Analyst: John V. Morris
Sample Batch Number: 20020016, 20020017 & 20020027
Facility Name: Cheshire Monitoring Study
Analyte: ICP Metals

Narrative for the Analysis of Metals in Air Filters in Batches 20020016, 20020017 & 20020027

On 16 November 2001, two sets of four air filters were received at CRL for analysis for metals. These samples were collected on 3 November 2001 and 9 November 2001. On 13 December 2001, two air filters were received at CRL for analysis for metals. These samples were collected on 21 November 2001. The sample descriptions are:

Batch ID	Sample ID	Serial No.	Station ID
20020016	2002AH18S01	G6093483	GHS
	2002AH18D01	G6093482	GHS
	2002AH18S02	G6093484	RVHS
	2002AH18S03	G6093481	ADDAVILLE
20020017	2002AH19S01	G6092997	GHS
	2002AH19D01	G6092996	GHS
	2002AH19S02	G6092999	RVHS
	2002AH19S03	G6092998	ADDAVILLE
20020027	2002AH21S02	G6092994	GHS
	2002AH21S03	G6092992	GHS

The analysis was limited to the thirteen metals listed on page 15 of the QAPP. It should be noted that on the paperwork for 20020027, all four sampling locations (PM_{10} had all four samples) were labeled GHS. The sample envelopes for 20020027 did say RVHS and ADDAVILLE, however. Some Dixon charts were missing information, but this was added by the analyst.

The samples were prepared on 18 December 2001. Method Metals_006, a hot block adaptation of the beaker digestion given in 40 CFR Part 50, Appendix G, was used for the digestion. The digestion log number was 1341. There are no holding times for the air program.

Only one filter blank was prepared because these were to be the last samples for metals in this study. Although statistical data had been collected for the serial number series used for these samples, the old statistics were used for the blank subtraction, because there was not a great difference in the new statistics. As before, blank subtraction was applied to the elements barium,

Date: 9 January 2002
Analyst: John V. Morris
Sample Batch Number: 20020016, 20020017 & 20020027
Facility Name: Cheshire Monitoring Study
Analyte: ICP Metals

chromium, iron, magnesium and nickel. This was done as described in section 11.2 of the CRL SOP Metals_006 to remove the contribution to the result from the glass fiber filter itself. The reporting limits used for those five elements were derived from ten times the standard deviation of the data used to arrive at the average blank.

The analysis was performed on 3 January 2002 using method Metals_003, using the Perkin-Elmer 3300DV ICP. The analyst mistakenly transposed three of the standards in setting up the tray. That is why the analysis was stopped and restarted during the analysis of the first set of instrument checks. Of the standards mixed up, the standard Cal Ag/K was not re-poured, because neither silver nor potassium was an analyte in this study. For that reason, some audits for those analytes are out of control.

For the thirteen metals reported for this study, all instrument check standards (LCM1, LCM2, Hi AQC) were in control. The blanks showed a few out-of-control audits, but were not of any consequence to the data. Specifically, magnesium was more negative than the MDL for all of the instrument blanks (LCB) straddling the field samples. None of this bias, if compensated for, would result in more than a fraction of a percent change in the magnesium data, so no flag used on this account. The digestion blank (LRB) was high for cobalt, copper, iron, magnesium and manganese, and low for arsenic, again with no effect.

The report level check (RLC) was within 80-120% recovery for most of the 13 elements. Arsenic and magnesium were outside these limits by almost exactly the amount the digestion blank was off. The other instrument checks for these elements were all in control, and the data for magnesium was far above the reporting limits, at least before filter blank subtraction. Arsenic was all below reporting limits, and as stated above, the low bias in that blank, if corrected, would still not result in a reportable value. The duplicate filter digestion was within ±20% for the relative percent difference (RPD) or within ± the MDL for the difference, with the exception of cadmium and nickel, with an absolute difference in the duplicate just greater than the MDL when converted to µg/filter in the duplicate of 2002AH18D01, and for nickel in the duplicate of 2002AH21 S03. Nickel was not at reportable levels in any case, and the only cadmium was more than 10 times the difference observed in the offending duplicate, so no flag was used.

One digest, that for sample 2002AH18S01, was greater than the calibration standard for copper. This sample was diluted two-fold and reanalyzed before the final set of instrument QCs.

No significant spectral interference errors are indicated in the SIC measurements for these samples.

Date: 9 January 2002
Analyst: John V. Morris
Sample Batch Number: 20020016, 20020017 & 20020027
Facility Name: Cheshire Monitoring Study
Analyte: ICP Metals

Again, as with previous batches, the co-located sample pair 2002AH18S01 and 2002AH18D01, as well as the co-located sample pair 2002AH19S01 and 2002AH19D01, results are quite different.

All analytical results files, sample information files and reformat files for ICP analysis can be found on the R5CRL data server using the following path:
h:\r5crl\vol3\metals\jvmorris\20020016_17_27\3300dv\

The narrative, QC summary spreadsheets, sample result calculation spreadsheets and the final sample report for ICP analysis can be found on the R5CRL data server using the following path:
h:\r5crl\vol3\metals\jvmorris\20020016_17_27\reports\

US EPA CRL - Region V
ICP Final Report Results
Air Filters

Sample Number:	2002AH19S01	Station ID:	GHS
Sample Batch Number:	20020017	Study:	Cheshire Monitoring Study
Collection Date:	9 Nov 01	Filter SN:	G6092997
Analysis Date:	3 Jan 02		

Element	Concentration		Units
Arsenic	9	U	µg/filter
Barium	95	U	µg/filter
Beryllium	0.6	U	µg/filter
Cadmium	0.6	U	µg/filter
Chromium	3.14	U	µg/filter
Cobalt	1.2	U	µg/filter
Copper	1140		µg/filter
Iron	428		µg/filter
Lead	14.8		µg/filter
Magnesium	343	U	µg/filter
Manganese	16.7		µg/filter
Nickel	5.73	U	µg/filter
Selenium	18	U	µg/filter

JVM
9 Jan 02

US EPA CRL - Region V
ICP Final Report Results
Air Filters

Sample Number:	2002AH19D01	Station ID:	GHS
Sample Batch Number:	20020017	Study:	Cheshire Monitoring Study
Collection Date:	9 Nov 01	Filter SN:	G6092996
Analysis Date:	3 Jan 02		

Element	Concentration		Units
Arsenic	9	U	µg/filter
Barium	95	U	µg/filter
Beryllium	0.6	U	µg/filter
Cadmium	0.6	U	µg/filter
Chromium	3.14	U	µg/filter
Cobalt	1.2	U	µg/filter
Copper	151		µg/filter
Iron	858		µg/filter
Lead	6.68		µg/filter
Magnesium	343	U	µg/filter
Manganese	26.7		µg/filter
Nickel	5.73	U	µg/filter
Selenium	18	U	µg/filter

JVM
9 Jan 02

US EPA CRL - Region V
ICP Final Report Results
Air Filters

Sample Number:	2002AH19S02	Station ID:	RVHS
Sample Batch Number:	20020017	Study:	Cheshire Monitoring Study
Collection Date:	9 Nov 01	Filter SN:	G6092999
Analysis Date:	3 Jan 02		

Element	Concentration		Units
Arsenic	9	U	µg/filter
Barium	95	U	µg/filter
Beryllium	0.6	U	µg/filter
Cadmium	0.6	U	µg/filter
Chromium	3.14	U	µg/filter
Cobalt	1.2	U	µg/filter
Copper	107		µg/filter
Iron	1050		µg/filter
Lead	9.88		µg/filter
Magnesium	368		µg/filter
Manganese	38.9		µg/filter
Nickel	5.73	U	µg/filter
Selenium	18	U	µg/filter

JVM
9 Jan 02

US EPA CRL - Region V
ICP Final Report Results
Air Filters

Sample Number:	2002AH19S03	Station ID:	ADDAVILLE
Sample Batch Number:	20020017	Study:	Cheshire Monitoring Study
Collection Date:	9 Nov 01	Filter SN:	G6092998
Analysis Date:	3 Jan 02		

Element	Concentration		Units
Arsenic	9	U	µg/filter
Barium	95	U	µg/filter
Beryllium	0.6	U	µg/filter
Cadmium	0.6	U	µg/filter
Chromium	3.14	U	µg/filter
Cobalt	1.2	U	µg/filter
Copper	279		µg/filter
Iron	364		µg/filter
Lead	6	U	µg/filter
Magnesium	343	U	µg/filter
Manganese	18.9		µg/filter
Nickel	5.73	U	µg/filter
Selenium	18	U	µg/filter

JVM
9 Jan 02

CRL Data Review Qualification Codes

QUALIFIER	DESCRIPTION
B	This flag is used when the analyte is found in the associated ***B***lank as well as the sample. It indicates possible blank contamination and warns the user to take appropriate action while assessing the data. See the case narrative for a discussion of common lab contaminants and/or the relative concentration of contamination in the samples and blanks for relevance.
J	This flag is used when the analyte is estimated due to quality control limit(s) being exceeded. This flag accompanies all GC/MS tentatively identified compounds (TICs). This flag also applies to a suspected, unidentified interference. This flag is placed on affected detected results as well as non-detected (i.e., "U" flagged) results. (***J*** is the flag used in the Superfund CLP SOW and Data Review Functional Guidelines and is used by CRL for consistency.)
M	This flag is used when the analyte is confirmed to be qualitatively present in the sample, extract or digestate, with a quantity at or above the CRL ***M***ethod Detection Limit (MDL) but below the lowest concentration of the calibration curve. This flag indicates the quantitated value is estimated since it falls below the lowest calibration standard in the calibration curve.
N	This flag applies to GC/MS Te***N***tatively Identified Compounds (TICs) that have a mass spectral library match.
Q	This flag applies to analyte data that are severely estimated due to quality control and/or ***Q***uantitation problems, but are confirmed to be qualitatively present in the sample. No value is reported with this qualification flag.
R	This flag applies to analyte data that are ***R***ejected and unusable due to severe quality control, quantitation and/or qualitative identification problems. No other qualification flags are reported for this analyte. No value is reported with this qualification flag.
U	This flag in used when the analyte was analyzed for but ***U***ndetected in the sample. The CRL RL for the analyte accompanies this flag. When the customer requests CRL to report below our RL down to our MDL, undetected analytes are reported with a "U" code and the MDL. As with sample results that are positive, the value is corrected for dry weight, dilution and/or sample weight or volume.

CENTRAL REGIONAL LABORATORY

Data Checklist

Data Set AIR 2002 0017 Cheshire Monitoring Suspended Particles

☑ Chain-of-Custody

☑ Analysis Request Form(s)*

☐ Sample Tags

☑ Transmittal Report w/signatures of the following:

- Analyst (s)
- Data Management Coordinator

* Analysis Request Forms provide the data user a means to connect sample numbers with sampling locations

Prepared by: Sylvia Griffin 11-30-01
Data Management Coordinator

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: NOV 30 2001

Subject: Review of Region 5 Data for **CHESHIRE MONITORING STUDY**

From: **Francis A. Awanya, Chemist** FAA
Region 5 Central Regional Laboratory

To:

Attached are the results for: **CHESHIRE MONITORING STUDY**

CRL data set number: **20020017**

Samples analyzed for: **Suspended Particles**

Results are reported for sample designations: **2002AH19S01, 2002AH19D01, 2002AH19S02, and 2002AH19S03.**

NOV 30 2001
/ /

Data Management Coordinator and Date Received

NOV 30 2001
Date Transmitted: ____/____/____

Please have the U.S. EPA Project Manager/Officer complete the Customer Satisfaction Survey, attached, or call the CRL Sample Coordinator at 3-1226.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML-10C

_____ / /

Received by and Date

Comments:

Rev. 7/23/01

Project No. 02AH19 Project Name CHESHIRE MONITORING STUDY AIR 2002017 ARRIVAL DATE: 11/16/2001 QUOTE DUE DATE 12/7/2001

Sampler: Mike Murphy

Cooler ID: 02AH191 Page: 5-140024

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH19DO1	DO1	09/11/2001 00:00:00	○ Grab ● Com	GHS	2	5-340099 1 to 2

Bottle No. 1 Parameter: Metal analysis by ICP

Bottle No. 2 Parameter: PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH19SO1	SO1	09/11/2001 00:00:00	○ Grab ● Com	GHS	2	5-340098 1 to 2

Bottle No. 1 Parameter: Metal analysis by ICP

Bottle No. 2 Parameter: PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH19SO2	SO2	09/11/2001 00:00:00	○ Grab ● Com	RVHS	2	5-340100 1 to 2

Bottle No. 1 Parameter: Metal analysis by ICP

Bottle No. 2 Parameter: PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH19SO3	SO3	09/11/2001 00:00:00	○ Grab ● Com	ADDAVILLE	2	5-340101 1 to 2

Bottle No. 1 Parameter: Metal analysis by ICP

Bottle No. 2 Parameter: PM10

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT FOR THE TEAM: ANALYTICAL AND INORGANIC (A&I)

DIVISION/BRANCH: AIR DIVISION **SAMPLING DATE:** 11/09/2001 **LAB ARRIVAL DATE:** 11/16/2001 **DUE DATE:** 12/07/2001
DU NUMBER: 90101A **DATA SET NUMBER:** 20020017 **STUDY:** CHESHIRE MONITORING STUDY **PRIORITY:** 1 **LABORATORY :**CRL

SAMPLE #	CRL LOG NUMBER	SAMPLE DESCRIPTION	SUSPENDED PARTICLE (g/filter)			
1	2002AH19S01	GUIDING HANDS SCHOOL	0.0200			
2	2002AH19D01	GUIDING HANDS SCHOOL	0.0210			
3	2002AH19S02	RVHS	0.0209			
4	2002AH19S03	ADDAVILLE	0.0132			
DATE OF ANALYSIS			11/26-29/2001			
ANALYST			FAA			

Reviewed by: E.S **Date:** 11/30/01

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
77 West Jackson Boulevard
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
02AH19	Cheshire monitoring study

SAMPLERS: *(Print Name and Sign)*
Mike Murphy Mike Murphy Mike Murphy

Activity Code: ~~12345~~ 90107A

AIR 2002007

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	Analyte	TAG NUMBERS
DO1	11/9	00:00	X		GHS	2		5-340099 1 to 2
SO1	11/9	00:00	X		GHS	2		5-340098 1 to 2
SO2	11/9	00:00	X		RVHS	2		5-340100 1 to 2
SO3	11/9	00:00	X		ADDAVILLE	2		5-340101 1 to 2
								GHS
								serial # 3012, PStg Avg = 19.0 inches of H2O
								serial # 3013, PStg Avg = 19.05 inches of H2O
								RVHS
								serial # 3009, PStg Avg = 18.75 inches of H2O
								Addaville
								serial # 3011, PStg Avg = 18.75 inches of H2O

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Ship To:
Mike Murphy	11-14-01 14:13	[signature]	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	ATTN:
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) [signature] Date / Time 11/16/01 12:21pm	Airbill Number UPS#1Z 401 19901 4019 1260
			Chain of Custody Seal Numbers

5-140024

ATTACHMENT II

CRL Analytical and Inorganics Data Review Checklist

Batch Number: 20020017 Facility: CHESHIRE MONITORING STUDY

Parameter: SUSPENDED PARTICLES CRL SOP: A1Ø47

Package Overview:	YES	NO
Raw Data Package Complete?	✓	
Results Reported Correctly?	✓	
Special Requests Done?	N/A	
Calculations Checked?	✓	
Calibration Not Exceeded?	N/A	
Manual Peak Integration performed? Circle one IC or GC and Check	N/A	
Field QC Checked?	N/A	
Quality Control:		
Holding Times Met?	N/A	
Preservation Checked?	N/A	
Proper Digestion Verified?	N/A	
Initial Instrument Performance Checks Verified?	✓	
Calibration Verification Checked?	N/A	
Sample-Specific QC (Internal Standards or Analytical Spikes) Okay?	N/A	
Matrix QC Checked?	N/A	
Digestion Blanks Checked?	N/A	
Spiked Blank Checked?	N/A	
LCS (if applicable) Checked?	N/A	
QCS (if applicable) Checked?	N/A	
Final Check		
Technical Review Done?	✓	
Narrative Complete?	✓	

Analyst: FAA Peer Reviewer: E.S

Date: 11/30/01 Date: 11/30/01

Comments Attached? (Y/N) N

Data Set Number:	*20020017*	**Parameter:**	*Suspended Particles*
Facility Name:	*CHESHIRE MONITORING STUDY*		
Study Name:	*CHESHIRE MONITORING STUDY*		
Date of Narrative:	*11/30/2001*	**Analyst:**	*FAA*
		Signature:	FAA

ANALYSIS CASE NARRATIVE

Four (4) exposed filters were received for suspended particle analysis at the Central Regional Laboratory (CRL) on November 16, 2001. Those filters were fractions of clean filters, prepared at the CRL and sent to the field for exposure. Filter identification numbers and other pertinent information obtained from the individual filters and packaging envelopes are presented in the table below.

Filters ID	Samples ID	Tag Number
Q6280130	2002AH19S01	5-340098-2
Q6280131	2002AH19D01	5-340099-2
Q6280128	2002AH19S02	5-340100-2
Q6280129	2002AH19S03	5-340101-2

Filter equilibrations and final weighting of exposed filters were performed according to CRL.SOP AIG047. Analysis of exposed filters began on 11/26/2001 and was completed on 11/29/2001. All exposed filters were in good conditions.

QUALITY CONTROL (QC):

Analysis results were evaluated using the QC requirements of CRL.SOP AIG047. All the required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits.

SAMPLE RESULTS:

All the sample results are acceptable for use.

ELECTRONIC DATA:

No electronic data.

CHESHIRE AIR MONITORING PROJECT
PM10

Parameter: Suspended Particles

Data Set Numbers: 20020016 & 20020017

Date of Analysis11/26-29/2001

Analyst: FAA

BALANCE VERIFICATION:

Sandard Weights Actual (g)	Balanced weight Balanced (g)	Differences (g)
		Limit +/-0.0005 g
Data set Number 20010071,72,73		
1.0000	1.0000	0.0000
2.0000	1.9999	0.0001
5.0000	5.0000	0.0000

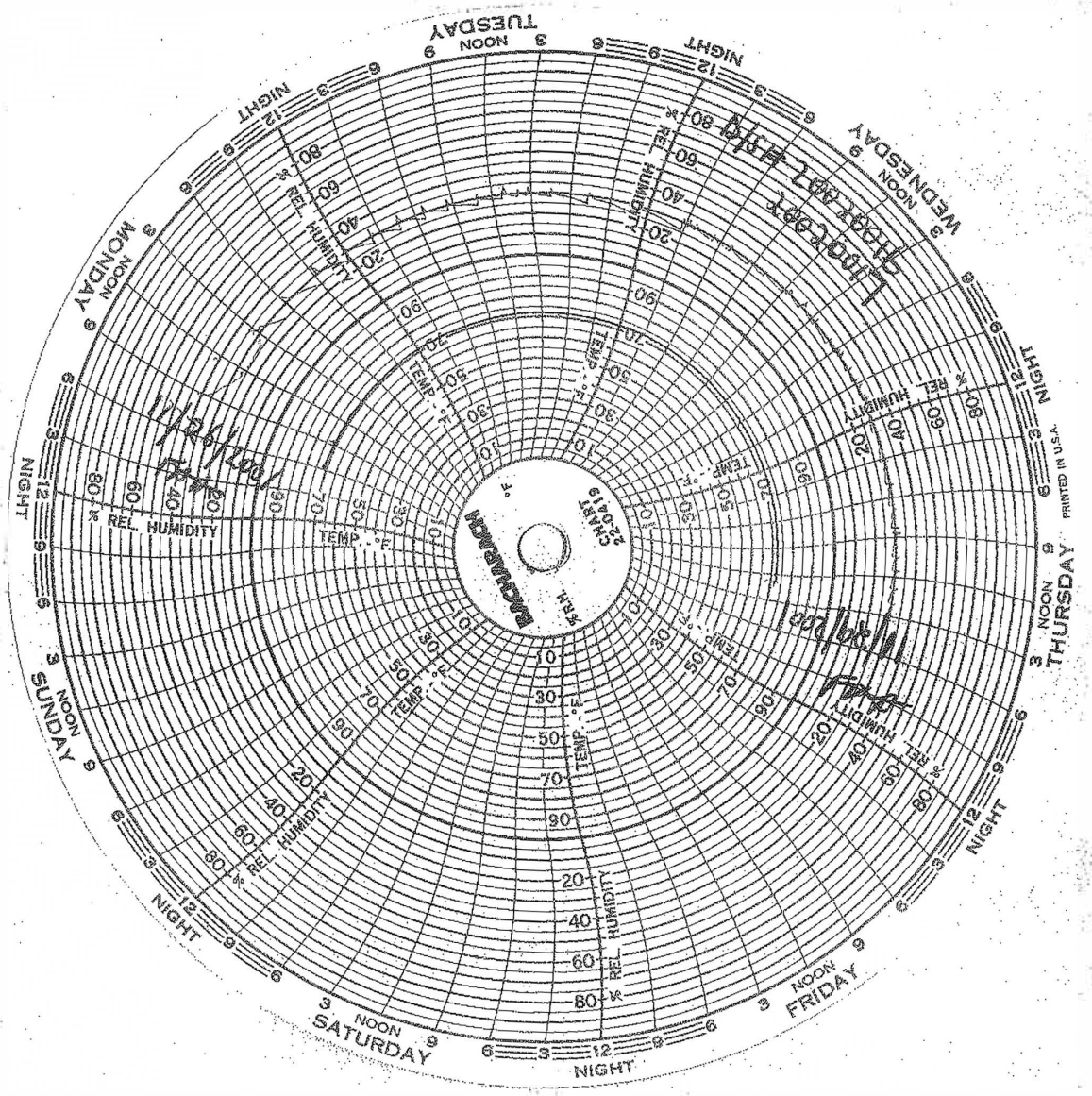
QC-SUMMARY FOR EXPOSED FILTERS

Filter ID Number	CRL Sample I.D Number	Sampling Date	ANALYST	Exposed weight (g)
Data set Number 20020016, 20020017				
Q6280035	2002AH18S03	11/03/01	Analyst 1	4.3834
Q6280035	2002AH18S03	11/03/01	Analyst 2	4.3835
Differences (Limit +/- 5 mg).....				-0.0001
Q6280129	2002AH19S03	11/09/01	Analyst 1	4.3893
Q6280129	2002AH19S03	11/09/01	Analyst 2	4.3896
Differences (Limit +/- 5 mg).....				-0.0003

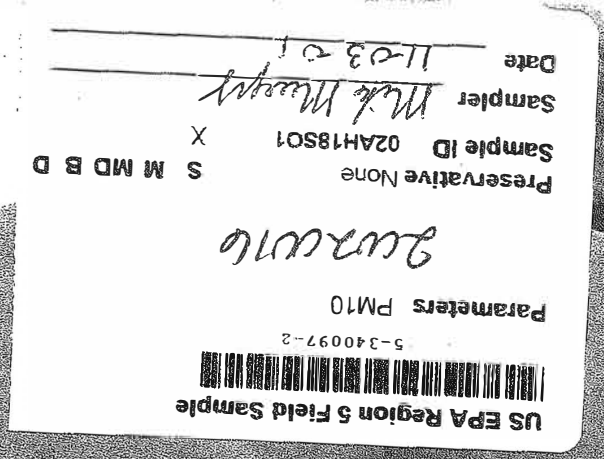
CHESHIRE AIR MONITORING PROJECT
PM10

Filter ID Number	CRL Sample I.D Number	Sampling Date	Station Location	Sampler SN	Pstg Avg	P1/Pa	Total Volume (M^3)	Pre Weight of filters (g)	Exposed weight (g)	Weight Gain	PM10 (UG/M^3)
Data set Number 20020016											
Q6280035	2002AH18S01	11/03/01	Guiding Hands School	3012	18.50		**0.00**	4.3789	4.3834	0.0045	ERR
Q6280036	2002AH18D01	11/03/01	Guiding Hands School	3013	18.50		**0.00**	4.3718	4.3793	0.0075	ERR
G6280037	2002AH18S02	11/03/01	RVHS	3009	19.10		**0.00**	4.3934	4.4100	0.0166	ERR
Q6280038	2002AH18S03	11/03/01	ADDAVILLE	3011	19.80		**0.00**	4.3721	4.3943	0.0222	ERR
Data set Number 20020017											
Q6280130	2002AH19S01	11/09/01	Guiding Hands School	3012	19.00		**0.00**	4.3693	4.3893	0.0200	ERR
Q6280131	2002AH19D01	11/09/01	Guiding Hands School	3013	19.05		**0.00**	4.3778	4.3988	0.0210	ERR
G6280128	2002AH19S02	11/09/01	RVHS	3009	18.75		**0.00**	4.3410	4.3619	0.0209	ERR
Q6280129	2002AH19S03	11/09/01	ADDAVILLE	3011	18.75		**0.00**	4.3565	4.3697	0.0132	ERR

Filter I.D.	TARE Wt. (g)	Dup wt (g)	Exposed wt (g)	Exposed wt Dup (g)	Comments	FILT I.
Q 6280149	4.3743					Q6280
Q 6280148	4.3825					Q628
Q 6280147	4.3725					Q628
Q 6280146	4.3555					Q628
Q 6280145	4.3781					Q628
Q 6280144	4.3909					Q628
Q 6280143	4.3709	4.3711 FAA				Q628
Q 6280142	4.3456					Q628
Q 6280141	4.3935					Q628
Q 6280140	4.3915					Q628
Q 6280139	4.3513					Q628
Q 6280138	4.3882					Q628
Q 6280137	4.3705					Q628
Q 6280136	4.3374	4.3375 FAA				Q628
Q 6280135	4.3633					Q628
Q 6280134	4.3930					Q628
Q 6280133	4.3637					Q628
Q 6280132	4.3378					Q628
Q 6280131	4.3778		4.3988 FAA 11/29/01			Q628
Q 6280130	4.3696		4.3893	4.3896		Q628
Q 6280129	4.3565	4.3569 FAA	4.3697			Q628
Q 6280128	4.3410		4.3619			Q628
Q 6280127	4.3644					Q628
Q 6280126	4.3633					Q628


TUESDAY
NOON
NIGHT
WEDNESDAY
NIGHT
THURSDAY
NOON
NIGHT
FRIDAY
NOON
NIGHT
SATURDAY
NOON
NIGHT
SUNDAY
NOON
NIGHT
MONDAY
NOON
NIGHT
TEMP. °F
REL. HUMIDITY
%
CHART 22041-19
BACHARACH

General information	*Standard weights, actual (g)*	*Balanced weights, balanced (g)*
METTLER TOLEDO	0.1000	0.1000
AG285	0.5000	0.5000
S/N 1120181838	2.0000	2.0000
11/16/01 FAA	5.0000	5.0000
SARTORIOUS	1.0000 (500+200+200+100mg)	1.0000
S/N 37010119	2.0000	2.0000
11/16/01 FAA	5.0000	4.9999
METTLER TOLEDO	5.0000	5.0000
AG285	10.0000	10.0000 FAA
S/N 1120181838	20.0000	20.0000 11/27/01
11/27/01 FAA	50.0000	50.0002
~~MET~~ AND HT200	100.00	100.00
S/N 1284054	200.00	199.99
11/28/01 AD	500.00	499.95
	700.00	699.94
	50.00	50.00
SARTORIOUS	1.0000	1.0000
S/N 37010119	2.0000	1.9999
11/29/01 FAA	5.0000	5.0000



M-10 1/ AIRS _____ OPERATOR OEPA DATE 11-03-01

SP _____ SITE GHS # 3012, IQ628035

W/G. RECORDER RESP. 18.5 TEMP ____ °C ____ K FINAL WT _____ g

ELAPSED TIME 1440 MINUTES PRESS _____ mmHg INITIAL WT _____ g

FLOW _____ m^3/min TOTAL FLOW _____ m^3 SAMPLE WT _____ g

STD _____ ACTUAL _____ PM-10 _____ ug/m^3

COMMENTS: _____

EPA 3308(REVISED 10/91)

US EPA Region 5 Field Sample

5-340096-2

Parameters PM10

2002016

Preservative None　　S M MD B D

Sample ID 02AH18D01　　X

Sampler Mike Murphy

Date 11-03-01

PM-10 ✓　　AIRS [redacted]　　OPERATOR OEPA　　DATE 11-03-01

TSP ______　　SITE GHS# 3013, Q6280039

AVG. RECORDER RESP. 18.5　　TEMP ____ °C ____ K　　FINAL WT ______ g

ELAPSED TIME 1440 MINUTES　　PRESS ______ mmHg　　INITIAL WT ______ g

FLOW ______ m^3/min　　TOTAL FLOW ______ m^3　　SAMPLE WT ______ g

STD ______　　ACTUAL ______　　PM-10 ______ ug/m^3

COMMENTS: ______

EPA 3306 (REVISED 10/91)

US EPA Region 5 Field Sample

5-340095-2

Parameters PM10

2012 CO10

Preservative None S M MD B D

Sample ID 02AH18S02 X

Sampler Mike Murphy

Date 11-03-01

PM-10 V AIRS [redacted] OPERATOR OEPA DATE 11-03-01

TSP _____ SITE RUHS # 3009, Q62S0037

AVG. RECORDER RESP. 19.1 TEMP _____ °C _____ K FINAL WT _____ g

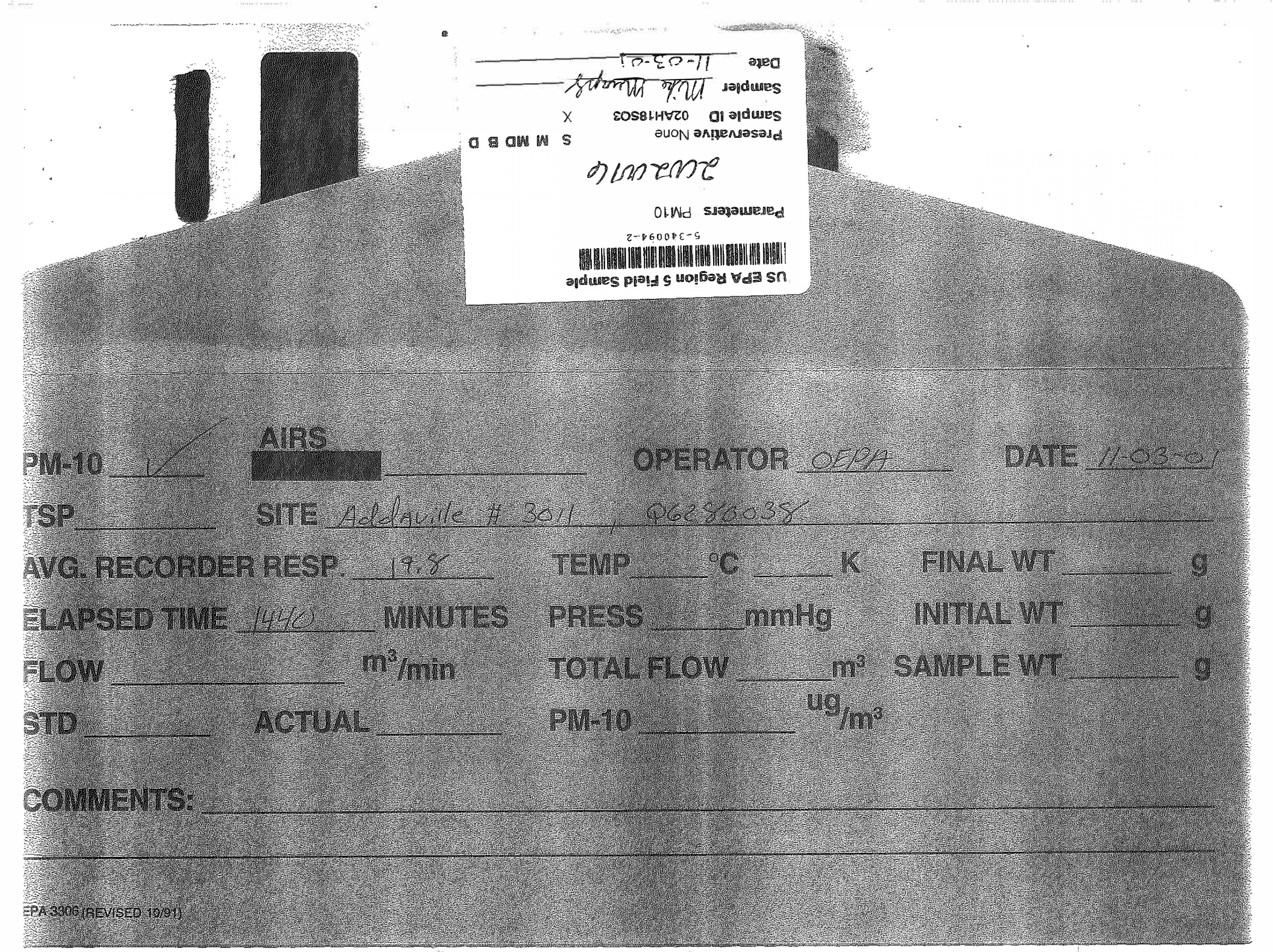
ELAPSED TIME 1440 MINUTES PRESS _____ mmHg INITIAL WT _____ g

FLOW _____ m^3/min TOTAL FLOW _____ m^3 SAMPLE WT _____ g

STD _____ ACTUAL _____ PM-10 _____ ug/m^3

COMMENTS: _____

EPA 3306 (REVISED 10/91)



PM-10 ✓ AIRS [redacted] OPERATOR OEPA DATE 11-03-01

TSP _____ SITE Adelaville # 3011, 060890038

AVG. RECORDER RESP. 19.8 TEMP _____ °C _____ K FINAL WT _____ g

ELAPSED TIME 1440 MINUTES PRESS _____ mmHg INITIAL WT _____ g

FLOW _____ m^3/min TOTAL FLOW _____ m^3 SAMPLE WT _____ g

STD _____ ACTUAL _____ PM-10 _____ ug/m^3

COMMENTS: _____

EPA 3306 (REVISED 10/91)